

The invention claimed is as follows.

-1-

5,277,512
A post and beam furniture system for partitioning open office space, and the like, comprising:

10, 11, 50
a plurality of overhead beams, each having opposite ends;

12, 13, 39
a plurality of vertical posts, each having a lower portion thereof adapted to be

5 abuttingly supported on a floor surface of the open office space, an upper portion thereof

adapted to be connected with an associated one of said overhead beams and at least one

36 32 16, 34
outwardly extending flange, having an end face with a single vertical slot extending centrally

therealong; and

14, 52
a plurality of beam-to-post connectors attached to said opposite ends of said

beams, and detachably retained in said slot in said posts for mounting said beams on said posts.

102
-2-

A furniture system as set forth in claim 1, wherein:

40
said slot has a generally T-shaped cross-sectional configuration with an enlarged

38
interior track portion and a reduced neck portion which opens outwardly.

102
-3-

A furniture system as set forth in claim 2, wherein:

said beam-to-post connectors are shaped to be inserted into an open end of said

slot.

X
-4-

A furniture system as set forth in claim 3, wherein:

said overhead beams each have a lowermost face with a single horizontal slot extending centrally therealong.

X -5-

A furniture system as set forth in claim 4, wherein:

said overhead beams each have an uppermost face with a single horizontal slot extending therealong.

X -6-

sub 5

A furniture system as set forth in claim 5, wherein:

each of said beam-to-post connectors includes:

not elongate in modify to be because on end of cross member

an elongate T-shaped central portion attached to one of the ends of an associated one of said beams, and closely received in said slot in said upper portion of an associated one of said posts; and

upper and lower key portions projecting inwardly from said central portion, and being closely received in said slots in said uppermost and lowermost faces of said one beam.

X -7-

sub 6

A furniture system as set forth in claim 6, wherein:

said upper and lower key portions include laterally extending fastener apertures therethrough; and

each of said beam-to-post connectors includes a pair of T-fasteners, having shank portions thereof mounted in said fastener apertures in said upper and lower key portions,

and T-shaped nut portions threadedly connected with said shank portions and closely received in said slot of said one post, such that tightening of said T-fasteners draws said one beam end and said one post together to securely, yet detachably, interconnect the same.

× -8-

A furniture system as set forth in claim 7, wherein:

each of said beam-to-post connectors includes an outwardly projecting stop which abuts an uppermost end of said one post to locate and retain said one beam at said upper portion of said one post.

× -9-

A furniture system as set forth in claim 8, wherein:

each of said slots in said posts, and each of said slots in said beams is generally similar in size and shape to receive a common fastener therein.

× -10-

A furniture system as set forth in claim 9, wherein:

said posts include at least one X-post having an X-shaped plan configuration defining four mutually perpendicular outwardly extending flanges, each of which has an end face with one of said slots extending centrally therealong.

× -11-

A furniture system as set forth in claim 10, wherein:

said posts include at least one Y-post having a Y-shaped plan configuration defining three regularly spaced apart, outwardly extending flanges, each of which has an end face with one of said slots extending centrally therealong.

✓ -12-

A furniture system as set forth in claim 11, including:

a plurality of partition accessories configured to equip said furniture system for users, and having mounts shaped to be detachably retained in said slots in said posts and said beams.

✓ -13-

A furniture system as set forth in claim 12, wherein:

each of said beams includes opposite side faces, each of which includes a hanger slot extending longitudinally therealong.

✓ -14-

A furniture system as set forth in claim 13, including:

a plurality of hanging accessories, each having a hook portion thereof shaped to be received and removably retained in said hanger slot.

✓ -15-

A furniture system as set forth in claim 14, wherein:

said hanger slot has a T-shaped lateral cross-sectional shape.

✓ -16-

A furniture system as set forth in claim 15, wherein:

said posts include hollow bases with adjustable leveling feet telescopingly received therein.

✓ -17-

A furniture system as set forth in claim 16, wherein:

said T-fasteners include allen head bolts.

X
-18-

A furniture system as set forth in claim 17, wherein:

said adjustable leveling feet each include:

a base plate shaped to abut the floor surface;

an upright connected with and upstanding from said base plate, and shaped to be closely received in the hollow base of an associated one of said posts;

at least one retainer plate received in said slot at a lowermost end of said one post; and

at least one fastener extending laterally through said retainer plate and into said upright.

X
-19-

A furniture system as set forth in claim 18, wherein:

each of said beams includes integrally formed bosses with open ends at the opposite ends of said beams; and including

fasteners extending laterally through said beam-to-post connectors and retained in the open ends of said bosses to detachably mount said beam-to-post connectors to the opposite ends of said beams.

X
-20-

A furniture system as set forth in claim 1, wherein:

Sub B6 Cinda
said overhead beams each have a lowermost face with a single horizontal slot
extending centrally therealong; and

5 said overhead beams each have an uppermost face with a single horizontal slot
extending therealong.

X-21-

Sub C1

A furniture system as set forth in claim 20, wherein:
each of said slots in said posts, and each of said slots in said beams is generally
similar in size and shape to receive a common fastener therein.

-22-

A furniture system as set forth in claim 21, including:
a plurality of partition accessories configured to equip said furniture system for
users, and having mounts shaped to be detachably retained in said slots in said posts and said
beams.

102 Fig 14E
-23-

Sub D1

A furniture system as set forth in claim 1, wherein:
said posts include at least one X-post having an X-shaped plan configuration
defining four mutually perpendicular outwardly extending flanges, each of which has an end
face with one of said slots extending centrally therealong.

102 -24- Fig 14D

A furniture system as set forth in claim 1, wherein:
said posts include at least one Y-post having a Y-shaped plan configuration
defining three regularly spaced apart, outwardly extending flanges, each of which has an end
face with one of said slots extending centrally therealong.

THE UNIVERSITY OF CHICAGO

34

Xov -26-

91

92

5/28

5

F

112A X
-28-

subst

5

an upright connected with and upstanding from said base plate, and shaped to be closely received in the hollow base of an associated one of said posts;

[WAB a slot has only been defined to
in said slot at a lowermost end] of said one extruded
vertically
extruded
at the
recess
near

CS

439

5

-30-

Sub C1/

10

24

a pair of T-fasteners having shank portions thereof mounted in said fastener apertures in said upper and lower key portions, and T-shaped nut portions thereof threadedly connected with said shank portions, and shaped to be closely received in the slot of the associated post, such that tightening said T-fasteners draws the end of the one beam and the one post together to securely, yet detachably, interconnect the same.

X -31-

A post-to-beam connector as set forth in claim 30, including:

an outwardly projecting stop which abuts an uppermost end of the one post to locate and retain one beam at the upper portion of the one post.

X -32-

A post-to-beam connector as set forth in claim 31, wherein:

said T-fasteners include allen head bolts.

X -33-

A post-to-beam connector as set forth in claim 32, wherein:

said central portion includes a plurality of laterally extending vertically spaced apart fastener apertures.

X -34-

A post-to-beam connector as set forth in claim 33, including:

a plurality of fasteners extending through said fastener apertures for attaching said post-to-beam connector to the end of the one beam.

X -35-

A post and beam furniture system for partitioning open office space, and the like, comprising:

a plurality of overhead beams, each having opposite ends, and a lowermost face with a single horizontal slot extending centrally therealong;

5 a plurality of vertical posts, each having a lower portion thereof adapted to be abuttingly supported on a floor surface of the open office space, and an upper portion thereof adapted to be connected with an associated one of said overhead beams; said posts including:

at least one X-post having an X-shaped plan configuration defining four mutually perpendicular, outwardly extending flanges, each of which has an end face with a single vertical slot extending centrally therealong; and

at least one Y-post having a Y-shaped plan configuration defining three regularly spaced apart, outwardly extending flanges, each of which has an end face with a single vertical slot extending centrally therealong;

a plurality of beam-to-post connectors configured to be attached to the opposite ends of said beams, and detachably retained in said slots in said posts for mounting said beams on said posts;

a plurality of partition accessories configured to equip said furniture system for users, and having mounts shaped to be detachably retained in said slots in said posts and said beams; and wherein

each of said slots in said posts, and each of said slots in said beams is generally similar in size and shape to retain a common fastener therein, and define an integrated universal mounting arrangement in said furniture system for detachably interconnecting said posts and said beams in alternative configurations, and mounting said accessories at a variety of different locations.

X -36-

A furniture system as set forth in claim 35, wherein:

said overhead beams each have an uppermost face with a single horizontal slot extending therealong.

X-37-

A furniture system as set forth in claim 36, wherein:

said slots each have a generally T-shaped cross-sectional configuration with an enlarged interior track portion and a reduced neck portion which opens outwardly.

~~K~~-38-

A furniture system as set forth in claim 37, wherein:

said beam-to-post connectors are shaped to be inserted into an open end of one of the T-shaped slots in an associated one of said X-posts.

~~-39-~~

A furniture system as set forth in claim 38, wherein:

each of said beam-to-post connectors includes an elongate T-shaped central portion attached to an associated one of said beam ends, and configured to be closely received in said T-shaped slot in said upper portion of said one X-post, and upper and lower key portions projecting inwardly from said central portion, and being shaped for close reception in said T-shaped slots in said uppermost and lowermost faces of said one beam.

-40-

A furniture system as set forth in claim 39, wherein:

each of said beam-to-post connectors includes a pair of T-fasteners, having shank portions thereof mounted in associated fastener apertures in said upper and lower key portions, and T-shaped head portions threadedly connected with said shank portions and
5 closely received in said T-shaped slot of said one X-post, such that tightening of said T-fasteners draws said one beam end and said one X-post together to securely, yet detachably interconnect the same.

X-41-

A furniture system as set forth in claim 40, wherein:

each of said beams includes opposite side faces, each of which includes a hanger slot extending longitudinally therealong.

X-42-

A furniture system as set forth in claim 41, including:

a plurality of hanging accessories, each having a hook portion thereof shaped to be received and removably retained in said hanger slot.

X-43-

A furniture system as set forth in claim 42, wherein:

said hanger slot has a T-shaped lateral cross-sectional shape.

X-44-

A furniture system as set forth in claim 43, wherein:

said posts include hollow bases with adjustable leveling feet telescopingly received therein.

102 5277 512
-45-

5 ~~5bae~~ In post and beam furniture systems of the type having a plurality of overhead beams, and a plurality of vertical posts, each having a lower portion thereof adapted to be abuttingly supported on a floor surface of the open office space, and an upper portion thereof adapted to be connected with an associated one of said overhead beams, the improvement comprising:

at least one X-post having an X-shaped plan configuration defining four mutually perpendicular, outwardly extending flanges, each of which has an end face with a single vertical slot extending centrally therealong for detachably interconnecting said posts and said beams in alternative configurations, and for mounting accessories at a variety of different locations.

102
-46-

A furniture system as set forth in claim 45, wherein:

each said slot has a generally T-shaped cross-sectional configuration with an enlarged interior track portion and a reduced neck portion which opens outwardly.

-47-

A furniture system as set forth in claim 46, wherein:

said overhead beams each have a lowermost face with a single horizontal slot extending centrally therealong.

-48-

A furniture system as set forth in claim 47, wherein:

said overhead beams each have an uppermost face with a single horizontal slot extending therealong.

